Rushil Shah

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EDUCATION

University of Southern California   **Los Angeles, CA**
Bachelor of Science in Computer Science & Business Administration   *Aug 2022-May 2025*
- **Coursework:** Data Structures & Object-Oriented Programming, Algorithms, Software Development, Software Engineering, Enterprise Data Architecture, Introduction to Artificial Intelligence

SKILLS

- **Languages/Databases**: Python, Java, C++, HTML, CSS, JavaScript, TypeScript, SQL, PostgreSQL
- **Web/Frameworks:** React, Next.js, TailwindCSS, FastAPI, Spring Boot, REST APIs, gRPC, JWT, Redis, Docker, AWS, XGBoost, RAG, LangChain, Pandas, NumPy, scikit-learn, Matplotlib, MagicMock, Git

EXPERIENCE

Bank of America   **New York City, NY**
Software Engineer I   *Jul 2025-Present*
- Owning a production-grade, fault-tolerant batch processing system using Python and Quartz, eliminating 20+ hours of weekly manual work through automated monitoring, alerting, and self-healing recovery logic
- Building and deploying real-time ETL pipelines, partnering with DevOps and Risk teams to streamline data ingestion and reduce latency to downstream Trading Desks by 85%
- Cutting issue resolution time by 30% for Credit Officers through SQL query optimization and indexing strategies for support workflows, ensuring SLA compliance and data accuracy
- Ensuring 90%+ code coverage via automated testing using Pytest and MagicMock, securing the stability of business-critical ETL and batch processing flows

Trojan Marketing Group   **Los Angeles, CA**
Director of Technology   *Feb 2024-May 2025*
- Directed the full-stack SDLC for 4 client campaigns, collaborating with Design and Strategy teams to improve client visibility, automate workflows, and enhance engagement through technical deliverables
- Engineered a real-time React.js Spotify API integration for 300+ live event attendees, generating personalized drink recommendations with >99.7% uptime

NASA Jet Propulsion Laboratory   **Pasadena, CA**
Web Development APX Intern   *Sep 2023-May 2024*
- Coordinated content migration and QA for 200+ pages on science.nasa.gov, resolving 50+ critical staging bugs and ensuring consistent staging and deployment workflows
- Conducted structured QA testing to optimize load times and maintain 92% accessibility coverage, applying WCAG 2.1 guidelines for screen reader compatibility, keyboard navigation, and multimedia

PROJECTS

Basketball Advanced Analytics   **Github**
Full-Stack Development   *Nov 2025-Present*
- Architecting an event-driven, polyglot microservices platform for NBA analytics, enabling low-latency user requests while decoupling compute-intensive inference through gRPC and Pub/Sub
- Optimizing a real-time player tracking pipeline to deliver sub-second watchlist updates, significantly improving responsiveness for multi-player data aggregation
- Deploying a resilient infrastructure on AWS (EC2/RDS), utilizing caching, monitoring, and circuit breaker patterns to maintain 99.9% uptime against API failures
- Refactoring the prediction pipeline from a neural network to an XGBoost regressor, improving forecast accuracy on smaller datasets while supporting explainable, user-facing performance insights

Financial Dispatch   **Github**
Backend Development   *Sep 2025-Nov 2025*
- Developed an asynchronous financial data pipeline with FastAPI and PostgreSQL, utilizing asyncio to orchestrate the concurrent fetching of real-time stock quotes and company profiles for 300+ unique tickers
- Automated a notification system by integrating AWS SES for daily personalized financial alerts and AWS S3 for archiving pipeline execution logs, enabling end-to-end observability of the data dispatch process